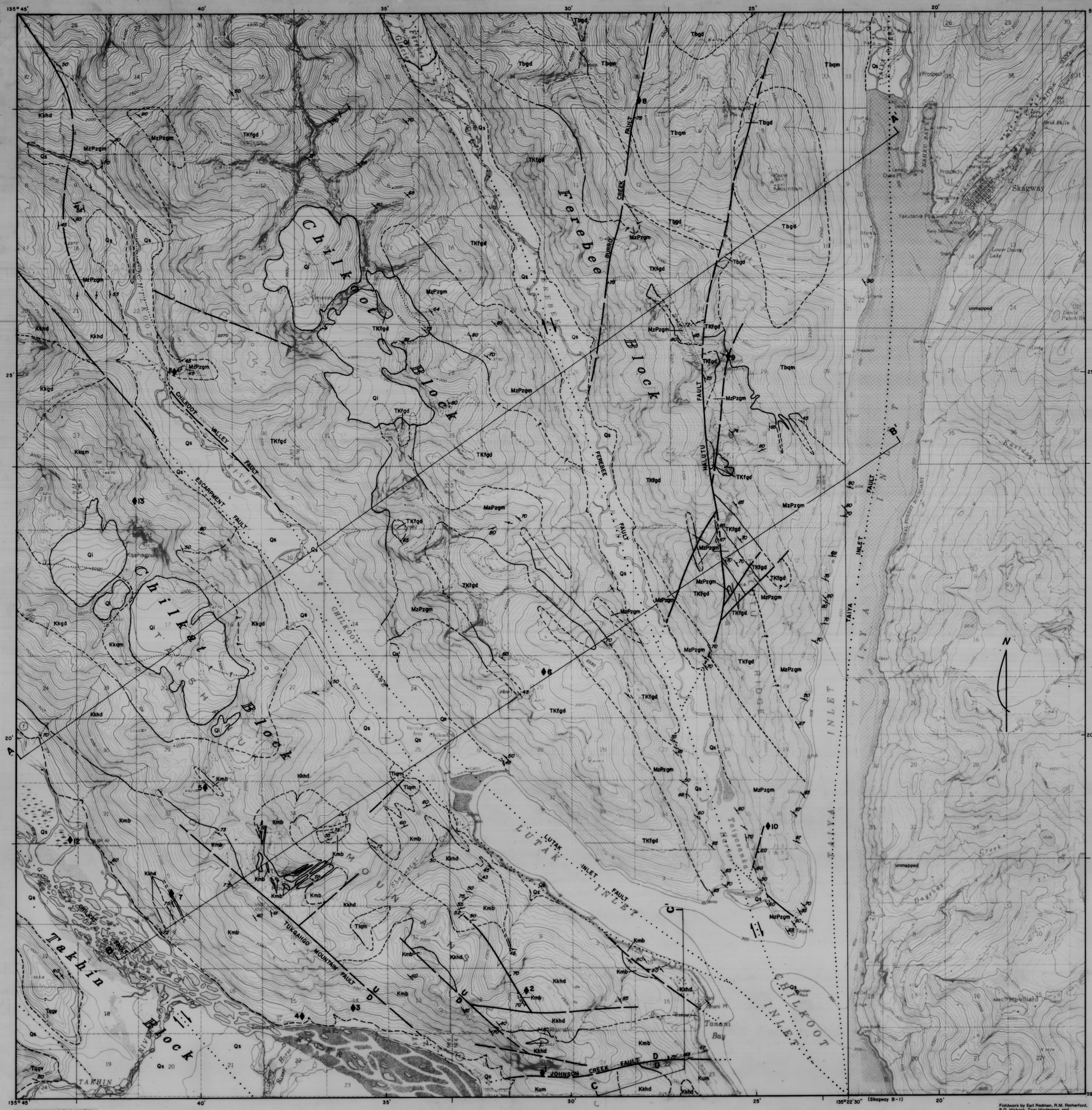

Base enlarged from U.S. Geological Survey Skagway B-1 (1954) and B-2 (1954) 1:63,360 Quadrangles, Alaska.

Fieldwork by Earl Redman, R.M. Retherford, B D. Hickock, Toni Hinderman and C C Hawley, 1983. Compilation by Earl Redman.

SCALE 1:40,000

1 1/2 0 1 2 3 4 MILES

1 .5 0 1 2 3 4 5 KILOMETERS

TRUE NORTH
MAGNETIC N
30°

APPROXIMATE MEAN DECLINATION, 1954

CONTOUR INTERVAL 100 FEET

DATUM IS MEAN SEA LEVEL

GEOLOGIC MAP OF THE SKAGWAY B-2 QUADRANGLE, ALASKA

by Earl Redman, R.M. Retherford, and B.D. Hickock

1984

EXPLANATION

QUATERNARY: Qi, Qs

TERTIARY: Tbgd, Tbqm, TKfgd

CRETACEOUS: Kkgd, Kkqm, Kkhd, Kum, Kmb

MESOZOIC AND/OR PALEOZOIC: MzPzgm

TAKHIN BLOCK: Tqgv

CHILKAT BLOCK: Tlqm

FEREBEE/CHILKOOT BLOCK: Tbgd, Tbqm, TKfgd, Kkgd, Kkqm, Kkhd, Kum, Kmb, MzPzgm

Qi Glacial Ice

Qs Undivided alluvial and colluvial deposits

Tqgv Strongly to moderately cataclastic hornblende-biotite quartz diorite and granodiorite. Rock occurs on Takhin block and contains large pendants or inclusions of andesitic volcanic rocks.
Plutonic rocks are medium-grained and subhedral and are composed of 10% quartz, 15% biotite 5% hornblende 10% K-feldspar and 60% plagioclase. K-Ar ages of quartz diorite are 29 to 33 m.y. Andesites are gray-green, massive and usually porphyritic.

Tlqm Leucocratic quartz monzonite. Rock occurs as small plugs and dikes concentrated in the Chilkat block, south and west of Tukgaho Peak. Plugs are medium-grained granular rocks, with 20% quartz, 1-3% biotite, 40% K-feldspar and 40% plagioclase. Dikes have a sucrosic texture and may contain small red garnets. This rock intrudes the metabasalt and Mt. Kashagnak pluton.

Tbgd Euhedral biotite granodiorite of the Burro Creek pluton. Rock is medium-grained, subhedral seriate, and is characterized by euhedral books of biotite. Composition is 20% quartz 15-20% combined biotite and hornblende (biotite is usually dominant), 5-10% K-feldspar and 50% plagioclase.

Tbqm Biotite quartz monzonite of the Burro Creek pluton. Rock is fine to medium-grained, subhedral, granular with characteristic large poikilitic plagioclase phenocrysts. Rock is composed of 20% quartz, 15% biotite, 25% K-feldspar and 40% plagioclase.

TKfgd Foliated hornblende-biotite granodiorite of the Ferebee pluton. Medium-grained, anhedral seriate and is composed of 15-20% quartz, 15-20% combined biotite and hornblende (biotite is usually dominant), 5-15% K-feldspar and 50-60% plagioclase. Intruded by the Burro Creek pluton.

Kkgd Porphyritic hornblende granodiorite of the Mt. Kashagnak pluton. Rock is leucocratic, medium-grained, moderately foliated, subhedral seriate with large, distinctive, pink K-feldspar phenocrysts to 5 cm. Phenocrysts contain no biotite. Rock composition is 10% quartz, 5-10% hornblende, 5-20% K-feldspar, and 60-80% plagioclase. Epidote is locally associated with hornblende crystals. Sphene and magnetite are common.

Kkqm Hornblende-biotite quartz monzonite porphyry of the Mt. Kashagnak pluton.
Rock is moderately foliated, medium-grained, subhedral seriate with distinctive K-feldspar phenocrysts to 7 cm. Outer zone of phenocrysts contains biotite aligned parallel to crystal margins. Rock is composed of 10-15% quartz, 10-15% biotite, 5% hornblende, 20-30% K-feldspar and 40-50% plagioclase. Sphene and magnetite are common. Rock intrudes Kkgd.

Kkhd Hornblende diorite. Medium-grained, subhedral seriate rock composed of 0-10% quartz, 15-20% hornblende, 1-5% epidote, 1% sphene, 5% K-feldspar and 60-75% plagioclase. Accessory magnetite is common. Epidote is an alteration product of hornblende. Small, local hornblende schlieren are common.

Kum Altered pyroxenite. Coarse-grained rock with cummulate texture and composed of subhedral crystals of hornblende and pyroxene. The rock is composed of 80% hornblende pseudomorphs after pyroxene. Hornblende-plagioclase-thulite pegmatites are abundant, both cut and grade into the pyroxenite. Up to 15% of rock is magnetite. Intruded by the Mt. Kashagnak pluton.

Kmb Metabasalt. Rock occurs as black to dark-green, massive, dense metabasalt flows, with local phyllitic interbeds. Rocks have undergone Abukuma-type high-temperature, low pressure metamorphism. Commonly flow-banded, porphyritic, and/or amygdaloidal. Contains rare pillows. Rocks are composed of almost equal amounts of hornblende and plagioclase, with minor chlorite and epidote. Pods, zones and veins of replacement epidote are common. Metabasalt is intruded by the Mt. Kashagnak pluton.

MzPzgm Gneiss and migmatite. Complex group of very high-grade paragneiss, migmatite and orthogneiss that have undergone Barrovian regional metamorphism. Rocks are strongly deformed quartzofeldspathic gneisses and diopside-garnet marble with locally abundant foliated plutonic rocks (probably derived from the Ferebee pluton). Contacts within this unit are gradational.

Contact; dashed where approximately located, dotted where concealed

Fault; dashed where approximately located, dotted where concealed

60 Strike and dip of foliation

Strike of vertical foliations

Known or reported mineral occurrence

This report is a preliminary publication of DGGS. The author is solely responsible for its content and will appreciate candid comments on the accuracy of the data as well as suggestions to improve the report.